

## SEQUENCE LISTING

<110> MAZARAKIS, NICHOLAS  
AZZOUZ, MIMOUN  
KINGSMAN, SUSAN

<120> VECTOR SYSTEM

<130> 674523-2017.1

<140>

<141>

<150> 10/429,608

<151> 2003-05-05

<150> PCT/GB03/00426

<151> 2003-10-03

<150> GB 0223076.1

<151> 2002-10-04

<150> GB 0228314.1

<151> 2002-12-04

<150> GB 0318213.6

<151> 2003-08-04

<150> PCT/GB01/04866

<151> 2001-11-02

<150> GB 0122238.9

<151> 2001-09-14

<150> GB 0102339.9

<151> 2001-01-30

<150> GB 0026943.1

<151> 2000-11-03

<160> 19

<170> PatentIn Ver. 2.1

<210> 1

<211> 10998

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide construct pONY8Z sequence

&lt;400&gt; 1

```

agatcttgaa taataaaatg tgtgtttgtc cgaaatacgc gttttgagat ttctgtcgcc 60
gactaaattc atgtcgcgcg atagtgggtt ttatcgccga tagagatggc gatattggaa 120
aaattgatat ttgaaaatat ggcatattga aaatgtcgcc gatgtgagtt tctgtgtaac 180
tgatatcgcc atttttccaa aagtgathtt tgggcatacg cgatatctgg cgatagcgct 240
tatatcgttt acgggggatg gcgatagacg actttgggtga cttggggcgat tctgtgtgtc 300
gcaaatatcg cagtttcgat ataggtgaca gacgatatga ggctatatcg ccgatagagg 360
cgacatcaag ctggcacatg gccaatgcat atcgatctat acattgaatc aatattggcc 420
attagccata ttattcattg gttatatagc ataaatcaat attggctatt ggccattgca 480
tacgttgtat ccataatcgta atatgtacat ttatattggc tcatgtccaa cattaccgcc 540
atgttgacat tgattattga ctagttatta atagtaatca attacggggt cattagtcca 600
tagcccatat atggagttcc gcgttacata acttacggta aatggccgcg ctggctgacc 660
gccaacgac cccgcgccat tgacgtcaat aatgacgtat gttcccatag taacgccaat 720
agggactttc cattgacgtc aatgggtgga gtatttacgg taaactgccc acttggcagt 780
acatcaagtg tatcatatgc caagtccgcc ccctattgac gtcaatgacg gtaaatggcc 840
cgcttgccat tatgcccagt acatgacctt acgggacttt cctacttggc agtacatcta 900
cgtattagtc atcgctatta ccatgggtgat gcggttttgg cagtacacca atgggcgtgg 960
atagcggttt gactcacggg gatttccaag tctccacccc attgacgtca atgggagttt 1020
gttttggcac caaaatcaac gggactttcc aaaatgtcgt aacaactgcg atcgcccgcc 1080
ccgttgacgc aaatgggcgg taggcgtgta cggtgaggag tctatataag cagagctcgt 1140
ttagtgaacc gggcactcag attctgcggt ctgagtcctc tctctgctgg gctgaaaagg 1200
cctttgtaat aaatataatt ctctactcag tccctgtctc tagtttgtct gttcgagatc 1260
ctacagttgg cgcgcgaaca gggacctgag aggggcgcag accctacctg ttgaacctgg 1320
ctgatcgtag gatccccggg acagcagagg agaacttaca gaagtcttct ggaggtgttc 1380
ctggccagaa cacaggagga caggtaagat tgggagaccc tttgacattg gagcaaggcg 1440
ctcaagaagt tagagaaggt gacggtacaa gggctctcaga aattaactac tggtaactgt 1500
aattgggcgc taagtctagt agacttattt catgatacca actttgtaaa agaaaaggac 1560
tggcagctga gggatgtcat tccattgctg gaagatgtaa ctcagacgct gtcaggacaa 1620
gaaagagagg cctttgaaag aacatgggtg gcaatttctg ctgtaaagat gggcctccag 1680
attaataatg tagtagatgg aaaggcatca ttccagctcc taagagcgaa atatgaaaag 1740
aagactgcta ataaaaagca gtctgagccc tctgaagaat atctctagaa ctagtggatc 1800
ccccgggctg caggagtggg gaggcacgat ggccgctttg gtcgaggcgg atccggccat 1860
tagccatatt attcattggg tatatagcat aaatcaatat tggctattgg ccattgcata 1920
cgttgtatcc atatcataat atgtacattt atattggctc atgtccaaca ttaccgccat 1980
gttgacattg attattgact agttattaat agtaatcaat tacgggggtc ttagttcata 2040
gcccataat ggagttccgc gttacataac ttacggtaaa tggcccgccg ggctgaccgc 2100
ccaacgaccc ccgcccattg acgtcaataa tgacgtatgt tcccatagta acgccaatag 2160
ggactttcca ttgacgtcaa tgggtggagt atttacggta aactgcccac ttggcagtag 2220
atcaagtgta tcatatgcca agtacgccc ctattgacgt caatgacggg aaatggcccg 2280
cctggcatta tgcccagtag atgaccttat gggactttcc tacttggcag tacatctacg 2340
tattagtcac cgctattacc atgggtgatg ggttttggca gtacatcaat gggcgtggat 2400
agcggtttga ctcacgggga tttccaagtc tccaccccat tgacgtcaat gggagtttgt 2460
tttggcacca aaatcaacgg gactttccaa aatgtcgtaa caactccgcc ccattgacgc 2520
aaatgggcgg taggcatgta cgggtgggag tctatataag cagagctcgt ttagtgaacc 2580
gtcagatcgc ctggagacgc catccacgct gttttgacct ccatagaaga caccgggacc 2640
gatccagcct ccgcgccccc aagcttcagc tgctcgagga tctgcggatc cggggaattc 2700
cccagtctca ggatccacca tgggggatcc cgctcgttta caacgtcgtg actgggaaaa 2760
ccctggcggt acccaactta atcgcccttc agcacatccc cctttcgcca gctggcgtaa 2820
tagcgaagag gccgcacccg atcgcccttc ccaacagttg cgcagcctga atggcgatg 2880
gcgctttgcc tggtttccgg caccagaagc ggtgcgggaa agctggctgg agtgcgatct 2940
tcctgaggcc gatactgtcg tcgtcccttc aaactggcag atgcacgggt acgatgcgcc 3000
catctacacc aacgtaacct atcccattac ggtcaatccg ccgtttgttc ccacggagaa 3060
tccgacgggt tgttactcgc tcacatttaa tgttgatgaa agctggctac aggaaggcca 3120
gacgcgaatt atttttgatg gcgttaactc ggcgtttcat ctgtggtgca acgggcgctg 3180

```

ggctcggttac	ggccaggaca	gtcgtttgcc	gtctgaattt	gacctgagcg	cattttttacg	3240
cgccggagaa	aaccgcctcg	cggtgatggg	gctgcgttgg	agtgcaggca	gttatctgga	3300
agatcaggat	atgtggcgga	tgagcggcat	tttccgtgac	gtctcgttgc	tgcataaacc	3360
gactacacaa	atcagcgatt	tccatgttgc	cactcgcttt	aatgatgatt	tcagccgcgc	3420
tgtactggag	gctgaagttc	agatgtgcgg	cgagttgcgt	gactacctac	gggtaacagt	3480
ttcttttatgg	cagggtgaaa	cgcaggtcgc	cagcggcacc	gcgcctttcg	gcggtgaaat	3540
tatcgatgag	cgtggtgggt	atgccgatcg	cgtcacacta	cgtctgaacg	tcgaaaaccc	3600
gaaactgtgg	agcgcggaaa	tcccgaatct	ctatcgtgcg	gtggttgaac	tgcacaccgc	3660
cgacggcacg	ctgattgaag	cagaagcctg	cgatgtcggt	ttccgcgagg	tgcggattga	3720
aaatggctctg	ctgctgctga	acggcaagcc	gttgcgtgatt	cgaggcggtta	accgtcacga	3780
gcatcatcct	ctgcatggtc	aggtcatgga	tgagcagacg	atggtgcagg	atatcctgct	3840
gatgaagcag	aacaacttta	acgcctgcg	ctggttcgcat	tatccgaacc	atccgctgtg	3900
gtacacgctg	tgcgaccgct	acggcctgta	tgtggtggat	gaagccaata	ttgaaaacca	3960
cggcattggtg	ccaatgaatc	gtctgaccga	tgatccgcgc	tggctaccgg	cgatgagcga	4020
acgcgtaacg	cgaatgggtc	agcgcgatcg	taatcaccgc	agtgtgatca	tctggtcgtc	4080
ggggaatgaa	tcaggccacg	gcgctaata	cgacgcgctg	tatcgctgga	tcaaactctgt	4140
cgatccttcc	cgcccggtgc	agtatgaagg	cggcggagcc	gacaccacgg	ccaccgatat	4200
tatttgcccg	atgtacgcgc	gcgtggatga	agaccagccc	ttcccggctg	tgccgaaatg	4260
gtccatcaaa	aaatggcttt	cgctacctgg	agagacgcgc	ccgctgatcc	tttgcgata	4320
cgcccacgcg	atgggtaaca	gtcttggcgg	tttcgctaaa	tactggcagg	cgtttcgtca	4380
gtatccccgt	ttacagggcg	gcttcgctcg	ggactgggtg	gatcagtcgc	tgattaaata	4440
tgatgaaaac	ggcaaccctg	ggtcggctta	cggcgggtgat	tttggcgata	cgccgaacga	4500
tcgccagttc	tgtatgaacg	gtctggtctt	tgccgaccgc	acgccgcctc	cagcgctgac	4560
ggaagcaaaa	caccagcagc	agtttttcca	gttccgctta	tccgggcaaa	ccatcgaaat	4620
gaccagcgaa	tacctgttcc	gtcatagcga	taacgagctc	ctgcactgga	tgggtggcgt	4680
ggatggtaag	ccgctggcaa	gcggtgaagt	gcctctggat	gtcgctccac	aaggtaaaaa	4740
gttgattgaa	ctgcctgaac	taccgcagcc	ggagagcgcc	gggcaactct	ggctcacagt	4800
acgcgtagtg	caaccgaacg	cgaccgcctg	gtcagaagcc	gggcacatca	gcgcctggca	4860
gcagtggcgt	ctggcggaac	acctcagttg	gacgctcccc	gccgcgtccc	acgccatccc	4920
gcattctgacc	accagcgaaa	tggatttttg	catcgagctg	ggtaataaag	gttggcaatt	4980
taaccgccag	tcaggctttc	tttcacagat	gtggattggc	gataaaaaac	aactgctgac	5040
gccgctgcgc	gatcagttca	cccgtgcacc	gctggataac	gacattggcg	taagtgaagc	5100
gacccgcatt	gaccctaacg	cctgggtcga	acgctggaag	gcggcgggcc	attaccaggc	5160
cgaagcagcg	ttgttgcagt	gcacggcaga	tacacttgct	gatgcggtgc	tgattacgac	5220
cgctcacgcg	tggcagcatc	aggggaaaac	cttattttatc	agccggaaaa	cctaccggat	5280
tgatggtagt	ggtcaaatgg	cgattaccgt	tgatgttgaa	gtggcgagcg	atacaccgca	5340
tccggcgcg	attggcctga	actgccagct	ggcgaggtta	gcagagcggg	taaactggct	5400
cggattaggg	ccgcaagaaa	actatcccga	ccgccttact	gccgcctgtt	ttgaccgctg	5460
ggatctgcca	ttgtcagaca	tgtatacccc	gtacgtcttc	ccgagcgaaa	acggtctgcg	5520
ctgcgggacg	cgcgaattga	attatggccc	acaccagtgg	cgcggcgact	tccagttcaa	5580
catcagccgc	tacagtcaac	agcaactgat	ggaaaccagc	catcgccatc	tgctgcacgc	5640
ggaagaaggc	acatggctga	atatcgacgg	tttccatatg	gggattgggtg	gcgacgactc	5700
ctggagcccc	tcagtatcgg	cggaattcca	gctgagcgcc	ggtcgctacc	attaccagtt	5760
ggtctggtgt	caaaaataat	aataaccggg	caggggggat	ccgcagatcc	ggctgtggaa	5820
tgtgtgtcag	ttaggggtgtg	gaaagtcccc	aggctcccca	gcaggcagaa	gtatgcaaag	5880
catgcctgca	ggaattcgat	atcaagctta	tcgataccgt	cgacctcgag	ggggggcccc	5940
gtacccagct	tttgttccct	ttagttaggg	ttaattgcgc	gggaagtatt	tatcactaat	6000
caagcacaa	taatacatga	gaaactttta	ctacagcaag	cacaatcctc	caaaaaattt	6060
tggttttaca	aaatccctgg	tgaacatgat	tggaaggagc	ctactagggg	gctgtggaag	6120
ggtgatgggtg	cagtagtagt	taatgatgaa	ggaaagggaa	taattgctgt	accattaacc	6180
aggactaagt	tactaataaa	accaaattga	gtattgttgc	aggaagcaag	acccaactac	6240
cattgtcagc	tgtgtttcct	gacctcaata	tttgttataa	ggtttgatat	gaatcccagg	6300
gggaatctca	accctatta	cccaacagtc	agaaaaatct	aagtgtgagg	agaacacaat	6360
gtttcaacct	tattgttata	ataatgacag	taagaacagc	atggcagaat	cgaagggaagc	6420

aagagaccaa	gaatgaacct	gaaagaagaa	tctaaagaag	aaaaaagaag	aaatgactgg	6480
tggaaaatag	gtatgtttct	gttatgctta	gcaggaacta	ctggaggaat	actttggtgg	6540
tatgaaggac	tcccacagca	acatttatata	gggttggtgg	cgataggggg	aagattaaac	6600
ggatctggcc	aatcaaatgc	tatagaatgc	tggggttcct	tcccgggggtg	tagaccattt	6660
caaaattact	tcagttatga	gaccaataga	agcatgcata	tggataataa	tactgctaca	6720
ttattagaag	ctttaaccaa	tataactgct	ctataaataa	caaaacagaa	ttagaaacat	6780
ggaagttagt	aaagacttct	ggcataactc	ctttacctat	ttcttctgaa	gctaactctg	6840
gactaattag	acataagaga	gatttttggtg	taagtgcatt	agtggcagct	attgtagccg	6900
ctactgctat	tgctgctagc	gctactatgt	cttatgttgc	tctaactgag	gttaacaaaa	6960
taatggaagt	acaaaatcat	actttttgagg	tagaaaatag	tactctaaat	ggtatggatt	7020
taatagaacg	acaaataaag	atatttatatg	ctatgattct	tcaaacacat	gcagatgttc	7080
aactgtttaa	ggaaagacaa	caggtagagg	agacatttaa	tttaattgga	tgtatagaaa	7140
gaacacatgt	atgttgtcat	actggtcatc	cctggaatat	gtcatgggga	cattttaaattg	7200
agtcaacaca	atgggatgac	tgggtaagca	aaatggaaga	tttaaatcaa	gagataactaa	7260
ctacacttca	tggagccagg	aacaatttgg	cacaatccat	gataacattc	aatacaccag	7320
atagtatagc	tcaatttggg	aaagaccttt	ggagtcatat	tggaaattgg	attcctggat	7380
tgggagcttc	cattataaaa	tatatagtga	tgtttttgct	tatttatattg	ttactaacct	7440
cttcgcctaa	gacccctcagg	gccctctgga	aggtgaccag	tgggtgcaggg	tcctccggca	7500
gtcgttacct	gaagaaaaaa	ttccatcaca	aacatgcata	gcgagaagac	acctgggacc	7560
aggcccaaca	caacatacac	ctagcaggcg	tgaccgggtg	atcaggggac	aaatactaca	7620
agcagaagta	ctccaggaac	gactggaatg	gagaatcaga	ggagtacaac	aggcggccaa	7680
agagctgggt	gaagtcaatc	gaggcatttg	gagagagcta	tatttccgag	aagaccaaag	7740
gggagatttc	tcagcctggg	gcggctatca	acgagcacia	gaacggctct	ggggggaaca	7800
atcctcacca	agggtcctta	gacctggaga	ttcgaagcga	aggaggaaac	atttatgact	7860
gttgcattaa	agcccaagaa	ggaactctcg	ctatcccttg	ctgtggattt	cccttatggc	7920
tattttgggg	actagtaatt	atagtaggac	gcatagcagg	ctatggatta	cgtggactcg	7980
ctgttataat	aaggatttgt	attagaggct	taaatttgat	atttgaaata	atcagaaaaa	8040
tgcttgatta	tattggaaga	gcttttaaate	ctggcacata	tcattgtatca	atgcctcagt	8100
atgttttagaa	aaacaagggg	ggaactgtgg	ggttttttatg	aggggtttta	taaatgatta	8160
taagagttaa	aagaaagttg	ctgatgctct	cataaccttg	tataacccaa	aggactagct	8220
catgttgcta	ggcaactaaa	ccgcaataac	cgcattttgtg	acgcgagttc	cccattggtg	8280
acgcgttaac	ttcctgtttt	tacagtatat	aagtgcctgt	attctgacaa	ttggggcactc	8340
agattctgcg	gtctgagtc	cttctctgct	gggctgaaaa	ggccttttga	ataaatataa	8400
ttctctactc	agtcctctgc	tctagtttgt	ctgttcgaga	tcctacagag	ctcatgcctt	8460
ggcgtaatac	tggctcatagc	tgtttcctgt	gtgaaattgt	tatccgctca	caattccaca	8520
caacatacga	gccggaagca	taaagtgtaa	agcctggggg	gcctaattgag	tgagctaact	8580
cacattaatt	gcgttgcgct	cactgcccgc	tttccagtcg	ggaaacctgt	cgtgccagct	8640
gcattaatga	atcgcccaac	gcgcggggag	aggcggtttg	cgtattgggc	gctcttccgc	8700
ttcctcgctc	actgactcgc	tgcgctcggg	cgttcggctg	cggcgagcgg	tatcagctca	8760
ctcaaaggcg	gtaatacggg	tatccacaga	atcaggggat	aacgcaggaa	agaacatgtg	8820
agcaaaaggc	cagcaaaagg	ccaggaaccg	taaaaaggcc	gcgttgctgg	cgtttttcca	8880
taggctccgc	ccccctgacg	agcatcacaa	aaatcgacgc	tcaagtcaga	ggtggcgaaa	8940
cccagacagga	ctataaagat	accaggcggt	tccccctgga	agctccctcg	tgcgctctcc	9000
tgttccgacc	ctgccgctta	ccggatacct	gtccgccttt	ctcccttcgg	gaagcggtgg	9060
gctttctcat	agctcacgct	gtaggatatct	cagttcggtg	taggtcggtc	gctccaagct	9120
gggctgtgtg	cacgaacccc	ccgttcagcc	cgaccgctgc	gccttatccg	gtaactatcg	9180
tcttgagtc	aacccggtaa	gacacgactt	atcgccactg	gcagcagcca	ctggtaacag	9240
gattagcaga	gcgaggtatg	taggcgggtg	tacaggttct	ttgaagtggg	ggcctaacta	9300
cggtctacact	agaaggacag	tatttggtat	ctgcgctctg	ctgaagccag	ttaccttcgg	9360
aaaaagagtt	ggtagctctt	gatccggcaa	acaaaccacc	gctggtagcg	gtgggttttt	9420
tgtttgcaag	cagcagatta	cgcgcagaaa	aaaaggatct	caagaagatc	ctttgatctt	9480
ttctacgggg	tctgacgctc	agtggaacga	aaactcacgt	taagggtatt	tgggtcatgag	9540
attatcaaaa	aggatcttca	cctagatcct	tttaaattaa	aaatgaagtt	ttaaatcaat	9600
ctaaagtata	tatgagtaaa	cttgggtctga	cagttaccaa	tgcttaatca	gtgaggcacc	9660

```

tatctcagcg atctgtctat ttcgttcac tcagttgcc tgactccccg tcgtgtagat 9720
aactacgata cgggagggct taccatctgg cccagtgct gcaatgatac cgcgagaccc 9780
acgctcaccg gctccagatt tatcagcaat aaaccagcca gccggaaggg ccgagcgag 9840
aagtggctct gcaactttat ccgcctccat ccagttctatt aattgttgcc gggaaagctag 9900
agtaagtagt tcgccagtta atagtttgcg caacgttggt gccattgcta caggcatcgt 9960
gggtgcacgc tcgtcgtttg gtatggcttc attcagctcc gggtcccaac gatcaaggcg 10020
agttacatga tcccccatgt tgtgcaaaaa agcgggttagc tccttcggtc ctccgatcgt 10080
tgtcagaagt aagttggccg cagtgttatc actcatgggt atggcagcac tgcataattc 10140
tcttactgtc atgccatccg taagatgctt ttctgtgact ggtgagtact caaccaagtc 10200
attctgagaa tagtgtatgc ggcgaccgag ttgctcttgc ccggcgtaa tacgggataa 10260
taccgcgcca catagcagaa ctttaaaagt gctcatcatt ggaaaacgtt cttcggggcg 10320
aaaactctca aggatcttac cgctgttgag atccagttcg atgtaacca ctctgcacc 10380
caactgatct tcagcatctt ttactttcac cagcgtttct gggtgagcaa aaacaggaag 10440
gcaaaatgcc gcaaaaaagg gaataagggc gacacggaaa tgttgaatac tcatactctt 10500
cctttttcaa tattattgaa gcatttatca gggttattgt ctcatgagcg gatacatatt 10560
tgaatgtatt tagaaaaata aacaaatagg ggttcgcgc acatttcccc gaaaagtgcc 10620
acctaaattg taagcgtaa tattttgtta aaattcgcgt taaatttttg taaatcagc 10680
tcatttttta accaataggc cgaatcggc aaaatccctt ataaatcaaa agaataagacc 10740
gagatagggg tgagtgttgt tccagtttgg aacaagagtc cactattaaa gaacgtggac 10800
tccaacgtca aagggcgaaa aaccgtctat cagggcgatg gccactacg tgaaccatca 10860
ccctaataca gtttttggg gtcgaggtgc cgtaaagcac taaatcgga ccctaaaggg 10920
agccccgat ttagagcttg acggggaaa ccaacctggc ttatcgaaat taatacgact 10980
cactataggg agaccggc

```

<210> 2

<211> 8531

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
nucleotide construct pONY8G sequence

<400> 2

```

agatcttgaa taataaaatg tgtgtttgtc cgaaatacgc gttttgagat ttctgtcgcc 60
gactaaattc atgtcgcgcg atagtgggtt ttatcgccga tagagatggc gatattggaa 120
aaattgatat ttgaaaatat ggcatattga aaatgtcgcc gatgtgagtt tctgtgtaac 180
tgatatcgcc atttttccaa aagtgatttt tgggcatacg cgatatctgg cgatagcgct 240
tatatcgttt acgggggatg gcgatatagc actttgggtg cttgggcgat tctgtgtgtc 300
gcaaatatcg cagtttcgat atagggtgaca gacgatatga ggctatatcg ccgatatagg 360
cgacatcaag ctggcacatg gccaatgcat atcgatctat acattgaatc aatattggcc 420
attagccata ttattcattg gttatatagc ataaatcaat attggctatt ggccattgca 480
tacgttgtat ccatatcgta atatgtacat ttatattggc tcatgtccaa cattaccgcc 540
atgttgacat tgattattga ctagttatta atagtaatca attacggggg cattagttca 600
tagcccatat atggagtcc gcgttacata acttacggta aatggccgcg ctggctgacc 660
gcccacgcac ccccgcccat tgacgtcaat aatgacgtat gttcccatag taacgccaat 720
agggactttc cattgacgtc aatgggtgga gtatttacgg taaactgccc acttggcagt 780
acatcaagtg tatcatatgc caagtccgcc ccctattgac gtcaatgacg gtaaatggcc 840
cgctggcat tatgccagc acatgacctt acgggacttt cctacttggc agtacatcta 900
cgtattagtc atcgctatta ccatggtgat gcggttttgg cagtacacca atgggcgtgg 960
atagcggttt gactcacggg gatttccaag tctccacccc attgacgtca atgggagttt 1020
gttttggcac caaatcaac gggactttcc aaaatgtcgt aacaactgcg atcgcccgcc 1080
ccgttgacgc aaatgggcgg taggcgtgta cgggtggagg tctatataag cagagctcgt 1140

```

ttagtgaacc	gggcactcag	attctgcggt	ctgagtcctt	tctctgctgg	gctgaaaagg	1200
cctttgtaat	aaatataatt	ctctactcag	tccctgtctc	tagtttgtct	gttcgagatc	1260
ctacagttgg	cgcccgaaca	gggacctgag	aggggcgcag	accctacctg	ttgaacctgg	1320
ctgatcgtag	gatccccggg	acagcagagg	agaacttaca	gaagtcttct	ggaggtgttc	1380
ctggccagaa	cacaggagga	caggtaagat	tgggagaccc	tttgacattg	gagcaaggcg	1440
ctcaagaagt	tagagaaggt	gacggtacaa	gggtctcaga	aattaactac	tggttaactgt	1500
aattgggctg	taagtctagt	agacttattt	catgatacca	actttgtaaa	agaaaaggac	1560
tggcagctga	gggatgtcat	tccattgctg	gaagatgtaa	ctcagacgct	gtcaggacaa	1620
gaaagagagg	cctttgaaag	aacatggtgg	gcaatttctg	ctgtaaagat	gggcctccag	1680
attaataatg	tagtagatgg	aaaggcatca	ttccagctcc	taagagcgaa	atatgaaaag	1740
aagactgcta	ataaaaagca	gtctgagccc	tctgaagaat	atctctagaa	ctagtggatc	1800
ccccgggctg	caggagtggt	gaggcacgat	ggcgcgtttg	gtcagaggcg	atccggccat	1860
tagccatatt	attcattggt	tatatagcat	aaatcaatat	tggctattgg	ccattgcata	1920
cgttgtatcc	atatcataat	atgtacattt	atattggctc	atgtccaaca	ttaccgccat	1980
gttgacattg	attattgact	agttattaat	agtaatcaat	tacggggtca	ttagttcata	2040
gcccataatat	ggagttccgc	gttacataac	ttacggtaaa	tggcccgctc	ggctgaccgc	2100
ccaacgaccc	ccgcccattg	acgtcaataa	tgacgtatgt	tcccatagta	acgccaatag	2160
ggactttcca	ttgacgtcaa	tgggtggagt	atttacggta	aactgcccac	ttggcagtac	2220
atcaagtgtg	tcatatgccg	agtacgcccc	ctattgacgt	caatgacggt	aaatggcccc	2280
cctggcatta	tgcccagtag	atgaccttat	gggactttcc	tacttggcag	tacatctacg	2340
tattagtcac	cgctattacc	atggtgtagc	ggttttggca	gtacatcaat	ggcggtggat	2400
agcggtttga	ctcacgggga	tttccaagtc	tccaccccat	tgacgtcaat	gggagtttgt	2460
tttggcacca	aaatcaacgg	gactttccaa	aatgtcgtaa	caactccgcc	ccattgacgc	2520
aaatgggctg	taggcattgt	cgggtggagg	tctatataag	cagagctcgt	ttagtgaacc	2580
gtcagatcgc	ctggagacgc	catccacgct	gttttgacct	ccatagaaga	caccgggacc	2640
gatccagcct	ccgcggcccc	aagcttggtg	ggatccaccg	gtcggccacca	tggtgagcaa	2700
gggcgaggag	ctggtcaccc	gggtggtgcc	catcctgggt	gagctggacg	gcgacgtaaa	2760
cggccacaag	ttcagcgtgt	cggcgagggg	cgagggcgat	gccacctacg	gcaagctgac	2820
cctgaagttc	atctgcacca	cgggcaagct	gcccgtgccc	tggcccaccc	tcgtgaccac	2880
cctgacctac	ggcgtgcagt	gcttcagccg	tacccccagc	cacatgaagc	agcacgactt	2940
cttcaagtcc	gccatgcccg	aaggctacgt	ccaggagcgc	accatcttct	tcaaggacga	3000
cggcaactac	aagaccgcgc	ccgaggtgaa	gttcgagggc	gacaccctgg	tgaaccgcat	3060
cgagctgaag	ggcatcgact	tcaaggagga	cggcaacatc	ctggggcaca	agctggagta	3120
caactacaac	agccacaacg	tctatatcat	ggccgacaag	cagaagaacg	gcatcaaggt	3180
gaacttcaag	atccgccaca	acatcgagga	cggcagcgtg	cagctcgccg	accactacca	3240
gcagaacacc	cccatcgggc	acggccccgt	gctgctgccc	gacaaccact	acctgagcac	3300
ccagtcgcgc	ctgagcaaag	accccaacga	gaagcgcgat	cacatggtcc	tgctggagtt	3360
cgtgaccgcc	gcccgggatca	ctctcggcat	ggacgagctg	tacaagtaaa	gcggccgcga	3420
ctctagagtc	gacctgcagg	catgcaagct	tcagctgtct	gagggggggc	ccggtaccca	3480
gcttttgttc	ccttttagtga	gggttaattg	cgcgggaagt	atztatcact	aatcaagcac	3540
aagtaataca	tgagaaactt	ttactacagc	aagcacaatc	ctccaaaaaa	ttttgttttt	3600
acaaaatccc	tgggtgaacat	gattggaagg	gacctactag	ggtgctgtgg	aaggggtgatg	3660
gtgcagtagt	agttaatgat	gaaggaaagg	gaataattgc	tgtaccatta	accaggacta	3720
agttactaat	aaaaccaaat	tgagtattgt	tgcaggaagc	aagacccaac	taccattgtc	3780
agctgtgttt	cctgacctca	atatttgtta	taaggtttga	tatgaatccc	agggggaatc	3840
tcaaccctca	ttaccacaac	gtcagaaaaa	tctaagtgtg	aggagaacac	aatgtttcaa	3900
ccttattggt	ataataatga	cagtaagaac	agcatggcag	aatcgaagga	agcaagagac	3960
caagaatgaa	cctgaaagaa	gaatctaaag	aagaaaaaag	aagaaatgac	tggtggaaaa	4020
taggtatggt	tctgttatgc	ttagcaggaa	ctactggagg	aatactttgg	tggtatgaag	4080
gactcccaca	gcaacattat	ataggtttgg	tggcgatagg	gggaagatta	aacggatctg	4140
gccaatcaaa	tgctatagaa	tgctgggggt	ccttcccggg	gtgtagacca	tttcaaaatt	4200
acttcagtta	tgagaccaat	agaagcatgc	atatggataa	taatactgct	acattattag	4260
aagctttaac	caatataact	gctctataaa	taacaaaaca	gaattagaaa	catggaagtt	4320
agtaaagact	tctggcataa	ctcctttacc	tatttcttct	gaagctaaca	ctggactaat	4380

tagacataag	agagatttttg	gtataagtgc	aatagtggca	gctattgtag	ccgctactgc	4440
tattgctgct	agcgctacta	tgtcttatgt	tgctctaact	gaggttaaca	aaataatgga	4500
agtacaaaat	catacttttg	aggtagaaaa	tagtactcta	aatgggatgg	atttaataga	4560
acgacaaata	aagatattat	atgctatgat	tcttcaaaca	catgcagatg	ttcaactggt	4620
aaaggaaaga	caacaggtag	aggagacatt	taattttaatt	ggatgtatag	aaagaacaca	4680
tgtattttgt	catactgggc	atccctggaa	tatgtcatgg	ggacatttaa	atgagtcaac	4740
acaatgggat	gactgggtaa	gcaaaatgga	agattttaaat	caagagatac	taactacact	4800
tcatggagcc	aggaacaatt	tggcacaatc	catgataaca	ttcaatacac	cagatagtat	4860
agctcaattt	ggaaaagacc	tttgaggtca	tattggaaat	tggattcctg	gattggggagc	4920
ttccattata	aaatatatag	tgatgttttt	gcttatttat	ttgttactaa	cctcttcgcc	4980
taagatcctc	agggccctct	ggaagggtgac	cagtgggtgca	gggtcctccg	gcagtcgtta	5040
cctgaagaaa	aaattccatc	acaaacatgc	atcgcgagaa	gacacctggg	accaggccca	5100
acacaacata	cacctagcag	gcgtgaccgg	tggatcaggg	gacaaatact	acaagcagaa	5160
gtactccagg	aacgactgga	atggagaatc	agaggagtac	aacaggcggc	caaagagctg	5220
ggtgaagtca	atcgaggcat	ttggagagag	ctatatttcc	gagaagacca	aaggggagat	5280
ttctcagcct	ggggcggtca	tcaacgagca	caagaacggc	tctgggggga	acaatcctca	5340
ccaaggggcc	ttagacctgg	agattcgaag	cgaaggagga	aacatttatg	actgttgcac	5400
taaagcccaa	gaagggaactc	tcgctatccc	ttgctgtgga	tttcccttat	ggctattttg	5460
gggactagta	attatagtag	gacgcatagc	aggctatgga	ttacgtggac	tcgctgttat	5520
aataaggatt	tgatttagag	gcttaaatct	gatatttgaa	ataatcagaa	aaatgcttga	5580
ttatattgga	agagctttta	atcctggcac	atctcatgta	tcaatgcctc	agtatgttta	5640
gaaaaacaag	gggggaactg	tgggggtttt	atgaggggtt	ttataaatga	ttataaagat	5700
aaaaagaaag	ttgctgatgc	tctcataacc	ttgtataacc	caaaggacta	gctcatgttg	5760
ctaggcaact	aaaccgcaat	aaccgcattt	gtgacgcgag	ttccccattg	gtgacgcgtt	5820
aacttcctgt	ttttacagta	tataagtgtc	tgtattctga	caattgggca	ctcagattct	5880
gcggctctgag	tcccttctct	gctgggctga	aaaggccttt	gtaataaata	taattctcta	5940
ctcagtcctt	gtctctagtt	tgtctgttcg	agatcctaca	gagctcatgc	cttggcgtaa	6000
tcatggtcac	agctgtttcc	tgtgtgaaat	tggtatccgc	tcacaattcc	acacaacata	6060
cgagccggaa	gcataaagtg	taaagcctgg	ggtgcctaata	gagtgaagta	actcacatta	6120
attgcgttgc	gctcaactgc	cgctttccag	tcgggaaacc	tgctcgtgca	gctgcattaa	6180
tgaatcggcc	aacgcgcggg	gagaggcggg	ttgcgtattg	ggcgctcttc	cgcttccctg	6240
ctcactgact	cgctgcgctc	ggctcgttcg	ctgcggcgag	cggtatcagc	tcactcaaaag	6300
gcggtaatat	ggttatccac	agaatcaggg	gataacgcag	gaaagaacat	gtgagcaaaa	6360
ggccagcaaa	aggccaggaa	ccgtaaaaag	gccgcgttgc	tggcggtttt	ccataggctc	6420
cgccccctg	acgagcatca	caaaaatcga	cgctcaagtc	agaggtggcg	aaacccgaca	6480
ggactataaa	gataccaggc	gtttccccct	ggaagctccc	tcgtgcgctc	tcctgttccg	6540
acctgcccgc	ttaccggata	cctgtccgcc	tttctccctt	cggaagcgt	ggcgctttct	6600
catagctcac	gctgtaggtg	tctcagttcg	gtgtaggtcg	ttcgctccaa	gctgggctgt	6660
gtgcacgaac	ccccggttca	gcccgaaccg	tgcgcttat	ccggtacta	tcgtcttgag	6720
tccaaccggg	taagacacga	cttatcgcca	ctggcagcag	ccactggtaa	caggattagc	6780
agagcgaggt	atgtaggcgg	tgtacacagag	ttcttgaagt	gggtggcctaa	ctacggctac	6840
actagaagga	cagtatttgg	tatctgcgct	ctgctgaagc	cagttacctt	cggaaaaaga	6900
gttggtagct	cttgatccgg	caaacaaacc	accgctggta	gcggtgggtt	ttttgtttgc	6960
aagcagcaga	ttacgcgcag	aaaaaaagga	tctcaagaag	atcctttgat	cttttctacg	7020
gggtctgacg	ctcagtgga	cgaaaactca	cgtaaaggga	ttttgggtcat	gagattatca	7080
aaaaggatct	tcacctagat	cctttttaaat	taaaaatgaa	gtttttaaatc	aatctaaagt	7140
atatatgagt	aaacttggtc	tgacagttac	caatgcttaa	tcagtgaggc	acctatctca	7200
gcgatctgtc	tatttcgttc	atccatagtt	gcctgactcc	ccgtcgtgta	gataactacg	7260
atacggggag	gcttaccatc	tggccccagt	ctgccaatga	taccgcgaga	cccagctca	7320
ccgggtccag	atztatcagc	aataaaccag	ccagccggaa	gggccgagcg	cagaagtggt	7380
cctgcaactt	tatccgcctc	catccagttc	attaattgtt	gccgggaagc	tagagtaagt	7440
agttcgccag	ttaatagttt	gcgcaacggt	gttgccattg	ctacaggcat	cgtgggtgtca	7500
cgctcgtcgt	ttggtatggc	ttcattcagc	tccggttccc	aacgatcaag	gcgagttaca	7560
tgatccccca	tgttgtgcaa	aaaagcgggt	agctccttcg	gtcctccgat	cgttgtcaga	7620

```

agtaagtgg cgcagtggt atcactcatg gttatggcag cactgcataa ttctcttact 7680
gtcatgccat ccgtaagatg cttttctgtg actgggtgagt actcaaccaa gtcattctga 7740
gaatagtgtg tgcggcgacc gagttgctct tgcccggcgt caatacggga taataccgcg 7800
ccacatagca gaactttaaa agtgctcatc attggaaaac gttcttcggg gcgaaaactc 7860
tcaaggatct taccgctgtt gagatccagt tcgatgtaac ccactcgtgc acccaactga 7920
tcttcagcat cttttacttt caccagcgtt tctgggtgag caaaaacagg aaggcaaaat 7980
gccgcaaaaa aggggaataag ggcgacacgg aaatgttgaa tactcatact cttccttttt 8040
caatattatt gaagcattta tcagggttat tgtctcatga gcggatacat atttgaatgt 8100
atttagaaaa ataaacaaat aggggttccg cgcacatttc cccgaaaagt gccacctaaa 8160
ttgtaagcgt taatatTTTg ttaaaattcg cgttaaattt ttgttaaadc agctcatttt 8220
ttaaccaata ggccgaaatc ggcaaaatcc cttataaatc aaaagaatag accgagatag 8280
ggttgagtgt tgttccagtt tggaacaaga gtccactatt aaagaacgtg gactccaacg 8340
tcaaagggcg aaaaaccgtc tatcagggcg atggcccact acgtgaacca tcaccctaata 8400
caagtttttt ggggtcgagg tgccgtaaag cactaaatcg gaaccctaaa gggagccccc 8460
gatttagagc ttgacgggga aagccaacct ggcttatcga aattaatacg actcactata 8520
gggagaccgg c                                     8531

```

<210> 3

<211> 524

<212> PRT

<213> Rabies virus

<400> 3

```

Met Val Pro Gln Ala Leu Leu Phe Val Pro Leu Leu Val Phe Pro Leu
  1                      5                      10                      15

```

```

Cys Phe Gly Lys Phe Pro Ile Tyr Thr Ile Pro Asp Lys Leu Gly Pro
      20                      25                      30

```

```

Trp Ser Pro Ile Asp Ile His His Leu Ser Cys Pro Asn Asn Leu Val
      35                      40                      45

```

```

Val Glu Asp Glu Gly Cys Thr Asn Leu Ser Gly Phe Ser Tyr Met Glu
      50                      55                      60

```

```

Leu Lys Val Gly Tyr Ile Leu Ala Ile Lys Met Asn Gly Phe Thr Cys
      65                      70                      75                      80

```

```

Thr Gly Val Val Thr Glu Ala Glu Thr Tyr Thr Asn Phe Val Gly Tyr
      85                      90                      95

```

```

Val Thr Thr Thr Phe Lys Arg Lys His Phe Arg Pro Thr Pro Asp Ala
      100                      105                      110

```

```

Cys Arg Ala Ala Tyr Asn Trp Lys Met Ala Gly Asp Pro Arg Tyr Glu
      115                      120                      125

```

```

Glu Ser Leu His Asn Pro Tyr Pro Asp Tyr Arg Trp Leu Arg Thr Val
      130                      135                      140

```

```

Lys Thr Thr Lys Glu Ser Leu Val Ile Ile Ser Pro Ser Val Ala Asp
      145                      150                      155                      160

```

Leu Asp Pro Tyr Asp Arg Ser Leu His Ser Arg Val Phe Pro Ser Gly  
 165 170 175  
 Lys Cys Ser Gly Val Ala Val Ser Ser Thr Tyr Cys Ser Thr Asn His  
 180 185 190  
 Asp Tyr Thr Ile Trp Met Pro Glu Asn Pro Arg Leu Gly Met Ser Cys  
 195 200 205  
 Asp Ile Phe Thr Asn Ser Arg Gly Lys Arg Ala Ser Lys Gly Ser Glu  
 210 215 220  
 Thr Cys Gly Phe Val Asp Glu Arg Gly Leu Tyr Lys Ser Leu Lys Gly  
 225 230 235 240  
 Ala Cys Lys Leu Lys Leu Cys Gly Val Leu Gly Leu Arg Leu Met Asp  
 245 250 255  
 Gly Thr Trp Val Ala Met Gln Thr Ser Asn Glu Thr Lys Trp Cys Pro  
 260 265 270  
 Pro Asp Gln Leu Val Asn Leu His Asp Phe Arg Ser Asp Glu Ile Glu  
 275 280 285  
 His Leu Val Val Glu Glu Leu Val Arg Lys Arg Glu Glu Cys Leu Asp  
 290 295 300  
 Ala Leu Glu Ser Ile Met Thr Thr Lys Ser Val Ser Phe Arg Arg Leu  
 305 310 315 320  
 Ser His Leu Arg Lys Leu Val Pro Gly Phe Gly Lys Ala Tyr Thr Ile  
 325 330 335  
 Phe Asn Lys Thr Leu Met Glu Ala Asp Ala His Tyr Lys Ser Val Arg  
 340 345 350  
 Thr Trp Asn Glu Ile Leu Pro Ser Lys Gly Cys Leu Arg Val Gly Gly  
 355 360 365  
 Arg Cys His Pro His Val Asn Gly Val Phe Phe Asn Gly Ile Ile Leu  
 370 375 380  
 Gly Pro Asp Gly Asn Val Leu Ile Pro Glu Met Gln Ser Ser Leu Leu  
 385 390 395 400  
 Gln Gln His Met Glu Leu Leu Glu Ser Ser Val Ile Pro Leu Val His  
 405 410 415  
 Pro Leu Ala Asp Pro Ser Thr Val Phe Lys Asp Gly Asp Glu Ala Glu  
 420 425 430  
 Asp Phe Val Glu Val His Leu Pro Asp Val His Asn Gln Val Ser Gly  
 435 440 445

Val Asp Leu Gly Leu Pro Asn Trp Gly Lys Tyr Val Leu Leu Ser Ala  
 450 455 460

Gly Ala Leu Thr Ala Leu Met Leu Ile Ile Phe Leu Met Thr Cys Cys  
 465 470 475 480

Arg Arg Val Asn Arg Ser Glu Pro Thr Gln His Asn Leu Arg Gly Thr  
 485 490 495

Gly Arg Glu Val Ser Val Thr Pro Gln Ser Gly Lys Ile Ile Ser Ser  
 500 505 510

Trp Glu Ser His Lys Ser Gly Gly Glu Thr Arg Leu  
 515 520

<210> 4

<211> 1650

<212> DNA

<213> Rabies virus

<400> 4

```

aggaaagatg gttcctcagg ctctcctggt tgtacccctt ctgggtttttc cattgtgttt 60
tgggaaattc cctattttaca cgatcccaga caagcttggt ccctggagcc cgattgacat 120
acatcacctc agctgcccac acaatttggt agtggaggac gaaggatgca ccaacctgtc 180
agggttctcc tacatggaac ttaaagttgg atacatctta gccataaaaa tgaacgggtt 240
cacttgacaca ggcgttgatga cggagggtga aacctacact aacttcgttg gttatgtcac 300
aaccacgttc aaaagaaagc atttccgccc aacaccagat gcatgtagag ccgcgtacaa 360
ctggaagatg gccggtgacc ccagatatga agagtctcta cacaatccgt accctgacta 420
ccgctggctt cgaactgtaa aaaccaccaa ggagtctctc gttatcatat ctccaagtgt 480
agcagatttg gacctatag acagatccct tcaactgagg gtcttcctta gcgggaagtg 540
ctcaggagta gcggtgtctt ctacctactg ctccactaac cagcattaca ccatttggat 600
gcccagagaat ccgagactag ggatgtcttg tgacattttt accaatagta gaggggaagag 660
agcatccaaa gggagtgaga cttgcggctt tgtagatgaa agaggcctat ataagtcttt 720
aaaaggagca tgcaaactca agttatgtgg agttctagga cttagactta tggatggaac 780
atgggtcgcg atgcaaacat caaatgaaac caaatggtgc cctcccgatc agttggtgaa 840
cctgcacgac tttcgctcag acgaaattga gcaccttggt gtagaggagt tggtcaggaa 900
gagagaggag tgtctggatg cactagagtc catcatgaca accaagtcag tgagtttcag 960
acgtctcagt catttaagaa aacttgctcc tgggtttgga aaagcatata ccatattcaa 1020
caagaccttg atggaagccg atgctcacta caagtcagtc agaacttgga atgagatcct 1080
cccttcaaaa ggggtgttaa gagttggggg gaggtgtcat cctcatgtga acggggtgtt 1140
tttcaatggg ataataatag gacctgacgg caatgtctta atcccagaga tgcaatcatc 1200
cctcctccag caacatatgg agttgttgga atcctcggtt atcccccttg tgcacccccct 1260
ggcagaccgg tctaccgttt tcaaggacgg tgacgaggct gaggattttg ttgaagttca 1320
ccttcccgat gtgcacaatc aggtctcagg agttgacttg ggtctccga actgggggaa 1380
gtatgtatta ctgagtgcag gggccctgac tgccttgatg ttgataattt tcctgatgac 1440
atgttgtaga agagtcaatc gatcagaacc tacgcaacac aatctcagag ggacagggag 1500
ggaggtgtca gtcactcccc aaagcgggaa gatcatatct tcatgggaat cacacaagag 1560
tgggggtgag accagactgt gaggactggc cgtcctttca acgatccaag tcctgaagat 1620
cacctcccct tgggggggttc ttttttaaaaa 1650

```

<210> 5  
 <211> 8870  
 <212> DNA  
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
 nucleotide construct pONY8.1Z sequence

<400> 5  
 agatcttgaa taataaaatg tgtggtttgtc cgaaatacgc gttttgagat ttctgtcgcc 60  
 gactaaattc atgtcgcgcg atagtgggtgt ttatcgccga tagagatggc gatattggaa 120  
 aaattgatat ttgaaaatat ggcatattga aaatgtcgcc gatgtgagtt tctgtgtaac 180  
 tgatatcgcc atttttccaa aagtgatttt tgggcatacg cgatatctgg cgatagcgct 240  
 tatatcgttt acgggggatg gcgatagacg actttggtga cttgggcat tctgtgtgtc 300  
 gcaaatatcg cagtttcgat ataggtgaca gacgatatga ggctatatcg ccgatagagg 360  
 cgacatcaag ctggcacatg gccaatgcat atcgatctat acattgaatc aatattggcc 420  
 attagccata ttattcattg gttatatagc ataaatcaat attggctatt ggccattgca 480  
 tacgttgtat ccatatcgta atatgtacat ttatattggc tcatgtccaa cattaccgcc 540  
 atgttgacat tgattattga ctagtattta atagtaatca attacggggt cattagttca 600  
 tagcccatat atggagttcc gcgttacata acttacggta aatggcccgc ctggctgacc 660  
 gcccaacgac ccccgcccat tgacgtcaat aatgacgtat gttcccatag taacgccaat 720  
 agggactttc cattgacgtc aatgggtgga gtatttacgg taaactgccc acttggcagt 780  
 acatcaagtg tatcatatgc caagtccgcc ccctattgac gtcaatgacg gtaaattggc 840  
 cgcttgccat tatgccagc acatgacctt acgggacttt cctacttggc agtacatcta 900  
 cgtattagtc atcgctatta ccatgggtgat gcggttttgg cagtacacca atgggcgtgg 960  
 atagcgggtt gactcacggg gatttccaag tctccacccc attgacgtca atgggagttt 1020  
 gttttggcac caaaatcaac gggactttcc aaaatgtcgt aacaactgcg atcgcccgc 1080  
 ccgttgacgc aaatgggcgg taggcgtgta cgggtgggagg tctatataag cagagctcgt 1140  
 ttagtgaacc gggcactcag attctgcggt ctgagtcctt tctctgtctg gctgaaaagg 1200  
 cttttgtaat aaatataatt ctctactcag tccctgtctc tagtttgtct gttcgagatc 1260  
 ctacagttgg cgcccgaaca gggacctgag aggggcgcag accctacctg ttgaacctgg 1320  
 ctgatcgtag gatccccggg acagcagagg agaacttaca gaagtcttct ggaggtgttc 1380  
 ctggccagaa cacaggagga caggtaagat tgggagaccc tttgacattg gagcaaggcg 1440  
 ctcaagaagt tagagaagg gacgggtacaa ggggtctcaga aattaactac tggtaactgt 1500  
 aattgggcgc taagtctagt agacttattt catgatacca actttgtaaa agaaaaggac 1560  
 tggcagctga gggatgtcat tccattgctg gaagatgtaa ctcagacgct gtcaggacaa 1620  
 gaaagagagg cctttgaaag aacatgggtg gcaatttctg ctgtaaagat gggcctccag 1680  
 attaataatg tagtagatgg aaaggcatca ttccagctcc taagagcgaa atatgaaaag 1740  
 aagactgcta ataaaaagca gtctgagccc tctgaagaat atctctagaa ctagtggatc 1800  
 ccccgggctg caggagtggg gaggcacgat ggccgctttg gtcgaggcgg atccggccat 1860  
 tagccatatt attcattgggt tatatagcat aaatcaatat tggctattgg ccattgcata 1920  
 cgttgtatcc atatcataat atgtacattt atattggctc atgtccaaca ttaccgccat 1980  
 gttgacattg attattgact agttattaat agtaatcaat tacggggtca ttagttcata 2040  
 gcccatatat ggagttccgc gttacataac ttacggtaaa tggcccgcct ggctgaccgc 2100  
 ccaacgaccc ccgcccattg acgtcaataa tgacgtatgt tcccatagta acgccaatag 2160  
 ggactttcca ttgacgtcaa tgggtggagt atttacggta aactgcccac ttggcagtac 2220  
 atcaagtgtg tcatatgcc agtacgcccc ctattgacgt caatgacggg aaatggcccg 2280  
 cctggcatta tgcccgtac atgaccttat gggactttcc tacttggcag tacatctacg 2340  
 tattagtcat cgctattacc atgggtgatgc ggttttggca gtacatcaat gggcgtggat 2400  
 agcggtttga ctcacgggga tttccaagtc tccaccccat tgacgtcaat gggagtttgt 2460  
 tttggcacca aaatcaacgg gactttccaa aatgtcgtaa caactccgcc ccattgacgc 2520  
 aaatgggcgg taggcatgta cgggtgggagg tctatataag cagagctcgt ttagtgaacc 2580  
 gtcagatcgc ctggagacgc catccacgct gttttgacct ccatagaaga caccgggacc 2640

gatccagcct	ccgcggcccc	aagcttcagc	tgtcgcagga	tctgcggatc	cggggaattc	2700
cccagtctca	ggatccacca	tgggggatcc	cgctcgttta	caacgtcgtg	actgggaaaa	2760
ccctggcggt	acccaactta	atcgccctgc	agcacatccc	cctttcgcca	gctggcgtaa	2820
tagcgaagag	gcccgcaccg	atcgcccttc	ccaacagttg	cgcagcctga	atggcgaatg	2880
gcgctttgcc	tggtttcggg	caccagaagc	ggcgccggaa	agctggctgg	agtgcgatct	2940
tcctgaggcc	gatactgtcg	tcgtcccttc	aaactggcag	atgcacgggt	acgatgcgcc	3000
catctacacc	aacgtaacct	atcccattac	ggccaatccg	ccgtttgttc	ccacggagaa	3060
tccgacgggt	tgttactcgc	tcacatttaa	tgttgatgaa	agctggctac	aggaaggcca	3120
gacgcgaatt	atttttgatg	gcgttaactc	ggcgtttcat	ctgtggtgca	acgggcgctg	3180
ggtcggttac	ggccaggaca	gtcgtttgcc	gtctgaattt	gacctgagcg	cattttttacg	3240
cgccggagaa	aaccgcctcg	cggatgatgg	gctgcgttgg	agtgcggca	gttatctgga	3300
agatcaggat	atgtggcgga	tgagcggcat	tttcggtgac	gtctcgttgc	tgcataaacc	3360
gactacacaa	atcagcgatt	tccatgttgc	cactcgcttt	aatgatgatt	tcagccgcgc	3420
tgtactggag	gctgaagttc	agatgtgcgg	cgagttgcgt	gactacctac	gggtaacagt	3480
ttctttatgg	cagggtgaaa	cgcaggtcgc	cagcggcacc	gcgcctttcg	gcggtgaaat	3540
tatcgatgag	cgtggtggtt	atgccgatcg	cgtcacacta	cgtctgaacg	tcgaaaaccc	3600
gaaactgtgg	agcgccgaaa	tcccgaatct	ctatcgtgcg	gtggttgaac	tgacaccgcg	3660
cgacggcacg	ctgattgaag	cagaagcctg	cgatgtcgg	ttccgcgagg	tgccgattga	3720
aaatggtctg	ctgctgctga	acggcaagcc	gttgctgatt	cgaggcgta	accgtcacga	3780
gcatcatcct	ctgcatggtc	aggtcatgga	tgagcagacg	atggtgcagg	atatcctgct	3840
gatgaagcag	aacaacttta	acgccgtgcg	ctgttcgcat	tatccgaacc	atccgctgtg	3900
gtacacgctg	tgcgaccgt	acggcctgta	tgtggtggat	gaagccaata	ttgaaacca	3960
cggcattggtg	ccaatgaatc	gtctgaccga	tgatccgcgc	tggtaccgg	cgatgagcga	4020
acgcgtaacg	cgaatggtgc	agcgcgatcg	taatcaccgc	agtgtgatca	tctggctcgt	4080
ggggaatgaa	tcaggccacg	gcgctaata	cgacgcgctg	tatcgctgga	tcaaactctgt	4140
cgatcccttc	cgcccgggtg	agtatgaagg	cgccggagcc	gacaccacgg	ccaccgatat	4200
tatttgcccg	atgtacgcgc	gcgtggatga	agaccagccc	ttcccggctg	tgccgaaatg	4260
gtccatcaaa	aaatggcttt	cgctacctgg	agagacgcgc	ccgctgatcc	tttgcgata	4320
cgcccacgcg	atgggtaaca	gtcttgccgg	tttcgctaaa	tactggcagg	cgtttcgtca	4380
gtatccccgt	ttacaggcg	gcttcgtctg	ggactgggtg	gatcagtcgc	tgattaaata	4440
tgatgaaaac	ggcaaccgt	ggcgggtta	cgccggtgat	tttggcgata	cgccgaacga	4500
tcgccagttc	tgtatgaacg	gtctgggtct	tgccgaccgc	acgccgcac	cagcgtgac	4560
ggaagcaaaa	caccagcagc	agtttttcca	gttcggttta	tcggggcaaa	ccatcgaaat	4620
gaccagcgaa	tacctgttcc	gtcatagcga	taacgagctc	ctgcaactga	tggtggcgct	4680
ggatggtaag	ccgctggcaa	gcgggtgaag	gcctctggat	gtcgctccac	aaggtaacaa	4740
gttgattgaa	ctgcctgaac	taccgcagcc	ggagagcgcc	gggcaactct	ggctcacagt	4800
acgcgtagt	caaccgaacg	cgaccgcgat	gtcagaagcc	gggcacatca	gcgcctggca	4860
gcagtggcgt	ctggcggaag	acctcagtg	gacgtccccc	gccgcgtccc	acgccatccc	4920
gcatctgacc	accagcgaaa	tggatttttg	catcgagctg	ggtaataaag	gttggcaatt	4980
taaccgccag	tcaggctttc	tttcacagat	gtggattggc	gataaaaaac	aactgctgac	5040
gccgctgcgc	gatcagttca	cccgtgcacc	gctggataac	gacattggcg	taagtgaagc	5100
gaccgcgatt	gaccctaacg	cctgggtcga	acgctggaag	gcggcgggcc	attaccaggc	5160
cgaagcagcg	ttgttgagct	gcacggcaga	tacacttgct	gatgcggtgc	tgattacgac	5220
cgctcacgcg	tgccagcatc	aggggaaaa	cttattttat	agccggaaaa	cctaccggat	5280
tgatggtagt	gggtcaaatg	cgattaccgt	tgatgttgaa	gtggcgagcg	atacaccgca	5340
tccggcgcg	attggcctga	actgccagct	ggcgaggtga	gcagagcggg	taaactggct	5400
cggattaggg	ccgcaagaaa	actatcccga	ccgccttact	gccgcctggt	ttgaccgctg	5460
ggatctgcca	ttgtcagaca	tgtatacccc	gtacgtcttc	ccgagcgaaa	acggtctcgc	5520
ctgcgggacg	cgcgaattga	attatggccc	acaccagtgg	cgccggcgact	tccagttcaa	5580
catcagccgc	tacagtcaac	agcaactgat	ggaaaccagc	catcgccatc	tgctgcacgc	5640
ggaagaaggc	acatggctga	atatcgacgg	tttccatatg	gggattgggtg	gcgacgactc	5700
ctggagcccc	tcagtatcgg	cggaattcca	gctgagcgcc	ggctcgctacc	attaccagtt	5760
ggtctggtgt	caaaaataat	aataaccggg	caggggggat	ccgcagatcc	ggctgtggaa	5820
tgtgtgtcag	ttagggtgtg	gaaagtcccc	aggctcccca	gcaggcagaa	gtatgcaaa	5880

catgcctgca	ggaattcgat	atcaagctta	tcgataccgt	cgaattggaa	gagctttaaa	5940
tcttggcaca	tctcatgtat	caatgcctca	gtatgtttag	aaaaacaagg	ggggaactgt	6000
gggggtttta	tgaggggttt	tataaatgat	tataagagta	aaaagaaagt	tgctgatgct	6060
ctcataacct	tgtataaccc	aaaggactag	ctcatgttgc	taggcaacta	aaccgcaata	6120
accgcatttg	tgacgcgagt	tccccattgg	tgacgcgtta	acttctctgt	tttacagtat	6180
ataagtgttt	gtattctgac	aattgggcac	tcagattctg	cggctctgagt	cccttctctg	6240
ctgggctgaa	aaggcctttg	taataaatat	aattctctac	tcagtccctg	tctctagttt	6300
gtctgttcga	gatactacag	agctcatgcc	ttggcgtaat	catggtcata	gctgtttcct	6360
gtgtgaaatt	gttatccgct	cacaattcca	cacaacatac	gagccggaag	cataaagtgt	6420
aaagcctggg	gtgcctaata	agtgaagctaa	ctcacattaa	ttgcgttgcg	ctcactgccc	6480
gctttccagt	cgggaaacct	gtcgtgccag	ctgcattaat	gaatcggcca	acgcgcgggg	6540
agaggcgggt	tgcgatttgg	gcgctcttcc	gcttctctgc	tcactgactc	gctgcgctcg	6600
gtcgttcggc	tgccggcgagc	ggtatcagct	cactcaaagg	cggtaataacg	gttatccaca	6660
gaatcagggg	ataacgcagg	aaagaacatg	tgagcaaaaag	gccagcaaaa	ggccaggaac	6720
cgtaaaaagg	ccgcgttgct	ggcgtttttc	cataggctcc	gccccctga	cgagcatcac	6780
aaaaatcgac	gctcaagtca	gaggtggcga	aaccgcagac	gactataaag	ataccaggcg	6840
tttccccctg	gaagctccct	cgtgcgctct	cctgttccga	ccctgccgct	taccggatac	6900
ctgtccgcct	ttctcccttc	gggaagcgtg	gcgctttctc	atagctcacg	ctgtaggtat	6960
ctcagttcgg	tgtaggtcgt	tcgctccaag	ctgggctgtg	tgacagcaac	ccccgttcag	7020
cccagccgct	gcgccttatc	cggtaactat	cgtcttgagt	ccaaccgggt	aagacacgac	7080
ttatcgccac	tggcagcagc	cactggtaac	aggattagca	gagcgaggta	tgtaggcgggt	7140
gctacagagt	tcttgaagtg	gtggcctaac	tacggctaca	ctagaaggac	agtatttgggt	7200
atctgcgctc	tgctgaagcc	agttaccttc	ggaaaaagag	ttggtagctc	ttgatccggc	7260
aaacaaacca	ccgctggtag	cgggtggttt	tttgtttgca	agcagcagat	tacgcgcaga	7320
aaaaaaggat	ctcaagaaga	tcctttgatc	ttttctacgg	ggtctgacgc	tcagtggaac	7380
gaaaactcac	gttaagggat	tttggtcatg	agattatcaa	aaaggatctt	cacctagatc	7440
cttttaaatt	aaaaatgaag	ttttaaatca	atctaaagta	tatatgagta	aacttgggtc	7500
gacagttacc	aatgcttaat	cagtgaaggca	cctatctcag	cgatctgtct	atttcgttca	7560
tccatagttg	cctgactccc	cgtcgtgtag	ataactacga	tacgggaggg	cttaccatct	7620
ggccccagtg	ctgcaatgat	accgcgagac	ccacgctcac	cggctccaga	tttaccagca	7680
ataaaccagc	cagccggaag	ggccgagcgc	agaagtgggtc	ctgcaacttt	atccgcctcc	7740
atccagtcta	ttaattgttg	ccgggaagct	agagtaaagta	gttcgccagt	taatagtttg	7800
cgcaacgttg	ttgccattgc	tacaggcatc	gtgggtgtcac	gctcgtcgtt	tggtatggct	7860
tcattcagct	ccggttccca	acgatcaagg	cgagttacat	gatcccccat	gttggtgcaa	7920
aaagcgggta	gctccttcgg	tcctccgatc	gttgctcagaa	gtaagtggc	cgcagtgtta	7980
tcactcatgg	ttatggcagc	actgcataat	tctcttactg	tcatgccatc	cgtaagatgc	8040
ttttctgtga	ctggtgagta	ctcaaccaag	tcattctgag	aatagtgtat	gcggcgaccg	8100
agttgtctct	gcccggcgctc	aatacgggat	aataccgcgc	cacatagcag	aactttaaaa	8160
gtgctcatca	ttggaaaacg	ttcttcgggg	cgaaaactct	caaggatctt	accgctgttg	8220
agatccagtt	cgatgtaacc	cactcgtgca	cccaactgat	cttcagcatc	ttttactttc	8280
accagcgttt	ctgggtgagc	aaaaacagga	aggcaaaatg	ccgcaaaaaa	gggaataagg	8340
gcgacacgga	aatgttgaat	actcatactc	ttcctttttc	aatattattg	aagcatttat	8400
cagggttatt	gtctcatgag	cggatacata	tttgaatgta	tttagaaaaa	taaacaataa	8460
gggggttccgc	gcacatttcc	ccgaaaagtg	ccacctaaat	tgtaagcgtt	aatattttgt	8520
taaaattcgc	gttaaatttt	tgtaaataca	gctcatTTTT	taaccaatag	gccgaaatcg	8580
gcaaaatccc	ttataaatca	aaagaataga	ccgagatagg	gttgagtgtt	gttccagttt	8640
ggaacaagag	tccactatta	aagaacgtgg	actccaacgt	caaagggcga	aaaaccgtct	8700
atcagggcga	tggcccacta	cgtgaacctc	caccctaact	aagttttttg	gggtcgagggt	8760
gccgtaaagc	actaaatcgg	aaccctaag	ggagcccccg	atttagagct	tgacggggaa	8820
agccaacctg	gcttatcgaa	attaatacga	ctcactatag	ggagaccggc		8870

<210> 6  
 <211> 24  
 <212> DNA  
 <213> Unknown Organism

<220>  
 <223> Description of Unknown Organism: Illustrative DNA  
 sequence

<220>  
 <221> CDS  
 <222> (1)..(24)

<400> 6  
 att tac acg ata cta gac aag ctt  
 Ile Tyr Thr Ile Leu Asp Lys Leu  
 1 5

24

<210> 7  
 <211> 8  
 <212> PRT  
 <213> Unknown Organism

<220>  
 <223> Description of Unknown Organism: Illustrative  
 amino acid sequence

<400> 7  
 Ile Tyr Thr Ile Leu Asp Lys Leu  
 1 5

<210> 8  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic DNA  
 sequence of the present invention

<220>  
 <221> CDS  
 <222> (1)..(24)

<400> 8  
 att tac acg atc cca gac aag ctt  
 Ile Tyr Thr Ile Pro Asp Lys Leu  
 1 5

24

<210> 9  
 <211> 8  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 amino acid sequence of the present invention

<400> 9  
 Ile Tyr Thr Ile Pro Asp Lys Leu  
 1 5

<210> 10  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 primer

<400> 10  
 cggtgctgca taaaccgact acac 24

<210> 11  
 <211> 22  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 primer

<400> 11  
 tgcagaggat gatgctcgtg ac 22

<210> 12  
 <211> 1650  
 <212> DNA  
 <213> Rabies virus

<400> 12  
 aggaaagatg gttcctcagg ctctcctggt tgtaccctt ctggtttttc cattgtgttt 60  
 tgggaaattc cctatttaca cgatactaga caagcttggt ccctggagcc cgattgacat 120  
 acatcacctc agctgcccaa acaatttggt agtggaggac gaaggatgca ccaacctgtc 180  
 agggttctcc tacatggaac ttaaagttgg atacatctta gccataaaaa tgaacggggt 240  
 cacttgacac ggcgttgtag cggaggctga aacctacact aacttcgttg gttatgtcac 300  
 aaccacgttc aaaagaaagc atttcgccc aacaccagat gcatgtagag ccgcgtacaa 360  
 ctggaagatg gccggtgacc ccagatatga agagtctcta cacaatccgt accctgacta 420  
 ccgctggctt cgaactgtaa aaaccaccaa ggagtctctc gttatcatat ctccaagtgt 480

```

agcagatttg gacccatatg acagatccct tcactcgagg gtcttcccta gcggaagtg 540
ctcaggagta gcggtgtctt ctacctactg ctccactaac cacgattaca ccatttgat 600
gcccgagaat ccgagactag ggatgtcttg tgacattttt accaatagta gagggaagag 660
agcatccaaa gggagtgaga cttgcggctt tgtagatgaa agaggcctat ataagtcttt 720
aaaaggagca tgcaaactca agttatgtgg agttctagga cttagactta tggatggaac 780
atgggtcgcg atgcaaacat caaatgaaac caaatggtgc cctcccgatc agttggtgaa 840
cctgcacgac ttctgctcag acgaaattga gcaccttggt gtagaggagt tggtcaggaa 900
gagagaggag tgtctggatg cactagagtc catcatgaca accaagtcag tgagtttcag 960
acgtctcagt catttaagaa aacttgctcc tgggttttgg aaagcatata ccatattcaa 1020
caagaccttg atggaagccg atgctcacta caagtcagtc agaacttgga atgagatcct 1080
cccttcaaaa ggggtgttta gagttggggg gaggtgtcat cctcatgtga acggggtgtt 1140
tttcaatggg ataattattg gacctgacgg caatgtctta atcccagaga tgcaatcacc 1200
cctcctccag caacatatgg agttgttggg atcctcgggt atcccccttg tgcacccctt 1260
ggcagacccg tctaccgttt tcaaggacgg tgacgaggtt gaggattttt ttgaagttca 1320
ccttcccgat gtgcacaatc aggtctcagg agttgacttg ggtctcccga actgggggaa 1380
gtatgtatta ctgagtgcag gggccctgac tgccttgatg ttgataattt tcctgatgac 1440
atgttgtaga agagtcaatc gatcagaacc tacgcaacac aatctcagag ggacaggag 1500
ggaggtgcca gtcactcccc aaagcgggaa gatcatatct tcatgggaat cacacaagag 1560
tgggggtgag accagactgt gaggactggc cgtcctttca acgatccaag tcctgaagat 1620
cacctcccct tggggggttc tttttaaaaa 1650

```

<210> 13

<211> 525

<212> PRT

<213> Rabies virus

<400> 13

```

Met Val Pro Gln Ala Leu Leu Phe Val Pro Leu Leu Val Phe Pro Leu
  1              5              10              15

```

```

Cys Phe Gly Lys Phe Pro Ile Tyr Thr Ile Leu Asp Lys Leu Gly Pro
      20              25              30

```

```

Trp Ser Pro Ile Asp Ile His His Leu Ser Cys Pro Asn Asn Leu Val
      35              40              45

```

```

Val Glu Asp Glu Gly Cys Thr Asn Leu Ser Gly Phe Ser Tyr Met Glu
      50              55              60

```

```

Leu Lys Val Gly Tyr Ile Leu Ala Ile Lys Met Asn Gly Phe Thr Cys
      65              70              75              80

```

```

Thr Gly Val Val Thr Glu Ala Glu Thr Tyr Thr Asn Phe Val Gly Tyr
      85              90              95

```

```

Val Thr Thr Thr Phe Lys Arg Lys His Phe Arg Pro Thr Pro Asp Ala
      100             105             110

```

```

Cys Arg Ala Ala Tyr Asn Trp Lys Met Ala Gly Asp Pro Arg Tyr Glu
      115             120             125

```

```

Glu Ser Leu His Asn Pro Tyr Pro Asp Tyr Arg Trp Leu Arg Thr Val
      130             135             140

```

Lys Thr Thr Lys Glu Ser Leu Val Ile Ile Ser Pro Ser Val Ala Asp  
 145 150 155 160  
 Leu Ile Asp Pro Tyr Asp Arg Ser Leu His Ser Arg Val Phe Pro Ser  
 165 170 175  
 Gly Lys Cys Ser Gly Val Ala Val Ser Thr Tyr Cys Ser Thr Asn  
 180 185 190  
 His Asp Tyr Thr Ile Trp Met Pro Glu Asn Pro Arg Leu Gly Met Ser  
 195 200 205  
 Cys Asp Ile Phe Thr Asn Ser Arg Gly Lys Arg Ala Ser Lys Gly Ser  
 210 215 220  
 Glu Thr Cys Gly Phe Val Asp Glu Arg Gly Leu Tyr Lys Ser Leu Lys  
 225 230 235 240  
 Gly Ala Cys Lys Leu Lys Leu Cys Gly Val Leu Gly Leu Arg Leu Met  
 245 250 255  
 Asp Gly Thr Trp Val Ala Met Gln Thr Ser Asn Glu Thr Lys Trp Cys  
 260 265 270  
 Pro Pro Asp Gln Leu Val Asn Leu His Asp Phe Arg Ser Asp Glu Ile  
 275 280 285  
 Glu His Leu Val Val Glu Glu Leu Val Arg Lys Arg Glu Glu Cys Leu  
 290 295 300  
 Asp Ala Leu Glu Ser Ile Met Thr Thr Lys Ser Val Ser Phe Arg Arg  
 305 310 315 320  
 Leu Ser His Leu Arg Lys Leu Val Pro Gly Phe Gly Lys Ala Tyr Thr  
 325 330 335  
 Ile Phe Asn Lys Thr Leu Met Glu Ala Asp Ala His Tyr Lys Ser Val  
 340 345 350  
 Arg Thr Trp Asn Glu Ile Leu Pro Ser Lys Gly Cys Leu Arg Val Gly  
 355 360 365  
 Gly Arg Cys His Pro His Val Asn Gly Val Phe Phe Asn Gly Ile Ile  
 370 375 380  
 Leu Gly Pro Asp Gly Asn Val Leu Ile Pro Glu Met Gln Ser Ser Leu  
 385 390 395 400  
 Leu Gln Gln His Met Glu Leu Leu Glu Ser Ser Val Ile Pro Leu Val  
 405 410 415  
 His Pro Leu Ala Asp Pro Ser Thr Val Phe Lys Asp Gly Asp Glu Ala  
 420 425 430

Glu Asp Phe Val Glu Val His Leu Pro Asp Val His Asn Gln Val Ser  
 435 440 445

Gly Val Asp Leu Gly Leu Pro Asn Trp Gly Lys Tyr Val Leu Leu Ser  
 450 455 460

Ala Gly Ala Leu Thr Ala Leu Met Leu Ile Ile Phe Leu Met Thr Cys  
 465 470 475 480

Cys Arg Arg Val Asn Arg Ser Glu Pro Thr Gln His Asn Leu Arg Gly  
 485 490 495

Thr Gly Arg Glu Val Ser Val Thr Pro Gln Ser Gly Lys Ile Ile Ser  
 500 505 510

Ser Trp Glu Ser His Lys Ser Gly Gly Glu Thr Arg Leu  
 515 520 525

<210> 14

<211> 1575

<212> DNA

<213> Rabies virus

<400> 14

```

atgggttcctc aggcctcctc gtttgtaccc cttctgggtt ttccattgtg ttttgggaaa 60
ttccctatatt acacgatccc agacaagctt ggtccctgga gcccgattga catacatcac 120
ctcagctgcc caaacaattt ggtagtggag gacgaaggat gcaccaacct gtcagggttc 180
tcctacatgg aacttaaagt tggatacatc ttagccataa aaatgaacgg gttcacttgc 240
acaggcggtg tgacggaggc tgaaacctac actaacttcg ttggttatgt cacaaccacg 300
ttcaaaagaa agcatttccg cccaacacca gatgcatgta gagccgcgta caactggaag 360
atggccggtg accccagata tgaagagtct ctacacaatc cgtaccctga ctaccgctgg 420
cttcgaactg taaaaaccac caaggagtct ctcgttatca tatctccaag tgtagcagat 480
ttggacccat atgacagatc ccttcactcg agggctcttc ctagcgggaa gtgctcagga 540
gtagcgggtg cttctaccta ctgctccact aaccacgatt acaccatttg gatgcccgag 600
aatccgagac tagggatgtc ttgtgacatt tttaccaata gtagagggaa gagagcatcc 660
aaagggagtg agacttgagg ctttgtagat gaaagaggcc tatataagtc tttaaaagga 720
gcatgcaaac tcaagttatg tggagttcta ggacttagac ttatggatgg aacatgggtc 780
gcgatgcaaa catcaaatga aaccaaattg tgccctcccg atcagttggg gaacctgcac 840
gactttcgct cagacgaaat tgagcacctt gttgtagagg agttggtcag gaagagagag 900
gagtgtctgg atgcactaga gtccatcatg acaaccaagt cagtgagttt cagacgtctc 960
agtcatttaa gaaaacttgt ccctgggttt ggaaaagcat ataccatatt caacaagacc 1020
ttgatggaag ccgatgctca ctacaactca gtcatgactt ggaatgagat cctcccctca 1080
aaaggggtgt taagagttgg ggggaggtgt catcctcatg tgaacggggg gtttttcaat 1140
ggtataatat taggacctga cggcaatgtc ttaatcccag agatgcaatc atccctcctc 1200
cagcaacata tggagttgtt ggaatcctcg gttatcccc ttgtgcaccc cctggcagac 1260
ccgtctaccg ttttcaagga cggtgacgag gctgaggatt ttgttgaagt tcaccttccc 1320
gatgtgcaca atcaggtctc aggagttgac ttgggtctcc cgaactgggg gaagtatgta 1380
ttactgagtg caggggccct gactgccttg atgttgataa ttttctgat gacatgttgt 1440
agaagagtca atcgatcaga acctacgcaa cacaatctca gagggacagg gagggaggtg 1500
tcagtcactc cccaaagcgg gaagatcata tcttcatggg aatcacacaa gagtgggggt 1560
gagaccagac tgtga
1575

```

<210> 15  
 <211> 1575  
 <212> DNA  
 <213> Rabies virus

<400> 15  
 atgggttcctc aggttctttt gtttgtactc cttctgggtt tttcgttgtg tttcgggaag 60  
 ttccccatth acacgatacc agacaaactt ggtccctgga gccctattga catacaccat 120  
 ctccgctgtc caaataacct ggttgtggag gatgaaggat gtatcaacct gtccgggttc 180  
 tcctacatgg aactcaaagt gggatacatc tcagccatca aagtgaacgg gttcacttgc 240  
 acaggtgttg tgacagaggc agagacctac accaactttg ttggttatgt cacaaccaca 300  
 ttcaagagaa agcatttccg cccacccca gacgcagtga gagccgcgta taactggaag 360  
 atggccggtg accccagata tgaagagtcc ctacaaaatc cataccccga ctaccactgg 420  
 cttcgaactg taagaaccac caaagagtcc ctcattatca tatccccaa gttgacagat 480  
 ttggacccat atgacaaatc ctttactca agggctcttc ctggcggaag gtgctcagga 540  
 ataacggtgt cctctaccta ctgctcaact aacctgatt acaccatttg gatgcccag 600  
 aatccgagac cagggacacc ttgtgacatt tttaccaata gcagagggaa gagagcatcc 660  
 aacgggaaca agacttgagg ctttgtggat gaaagaggcc tgtataagtc tctaaaagga 720  
 gcatgcaggc tcaagttatg tggagttctt ggacttagac ttatggatgg aacatgggtc 780  
 gcgatgcaaa catcagatga gaccaaagg tgctctccag atcagttggt gaatttgcac 840  
 gactttcgct cagacgagat tgagcatctc gttgtggagg agttagtcaa gaaaagagag 900  
 gaatgtctgg atacattaga gtccatcatg accaccaagt cagtaagttt cagacgtctc 960  
 agtcacctga gaaaacttgt cccagggttt ggaaaagcat ataccatatt caacaaaacc 1020  
 ttgatggagg ctgatgtcct ctacaagtca gtccggacct ggaatgagat catccccctc 1080  
 aaagggtgtt tgaaagttgg aggaagggtg catcctcatg tgaacggggg gtttttcaat 1140  
 ggtataatat tagggcctga cgaccgtgtc ctaatcccag agatgcaatc atccctcctc 1200  
 cggcaacata tggagttgtt ggaatcttca gttatcccc tgatgcaccc cctgggtgac 1260  
 ctttctacag ttttcaaaga aggtgatgag gctgaggatt ttgttgaagt tcacctcccc 1320  
 gatgtgtaca aacagatctc aggggttgac ctgggtctcc cgaactgggg aaagtatgta 1380  
 ttgatgactg caggggccat gattggcctg gtgttgatat tttccctaag gacatgggtg 1440  
 agaagagcca atcgaccaga atcgaaacaa cgcagttttg gagggacagg ggggaatgtg 1500  
 tcagtcactt cccaaagcgg aaaagtcata ccttcatggg aatcatataa gagtggaggt 1560  
 gagatcagac tgtga 1575

<210> 16  
 <211> 67  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic primer

<400> 16  
 ctacaactca gtcattgactt ggaatgagat cctccccctca aaagggtgtt taagagttgg 60  
 ggggagg 67

<210> 17  
 <211> 69  
 <212> DNA  
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
primer

<400> 17

ccttttgagg ggaggatctc attccaagtc atgactgagt tgtagtgagc atcggcttcc 60  
atcaaggtc 69

<210> 18

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
primer

<400> 18

accgtccttg acacgaagct 20

<210> 19

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
primer

<400> 19

gggggaggtg tgggaggttt 20